

XXXIX.—On the Inflorescence of *Fedia olitoria*, and its order of expansion. By G. DICKIE, M.D., Lecturer on Botany in the University and King's College of Aberdeen.

IN the latest works on British plants, Sir W. J. Hooker's and Mr. Babington's, the inflorescence of the different species of *Fedia* is described as follows:—

*Fedia olitoria*. Flowers capitate (Hooker); flowers in compact terminal heads, involucreted with oblong linear bracteas (Babington).

*F. carinata*. Flowers capitate (Babington).

*F. auricula*. Flowers corymbose, a sessile flower in the forks (Hooker); flowers distant, in the forks of a repeatedly dichotomous panicle (Babington).

*F. dentata*. Flowers corymbose, a sessile flower in the forks (Hooker); flowers corymbose (Babington).

*F. eriocarpa*. Corymb condensed (Babington).

From which it would appear as if there were in the British species of this genus, examples of three different kinds of inflorescence, viz. the capitulum in *F. olitoria* and *F. carinata*, the panicle in *F. auricula*, and the corymb in *F. dentata* and *F. eriocarpa*.

In the only species which has come under my observation in the fresh state, viz. *F. olitoria*, the general order of expansion is certainly not that which characterizes the simple capitulum; I was hence induced to examine more particularly the nature of its inflorescence. After careful inspection of numerous specimens, the cause of the apparent anomaly became very evident. The stems are invariably forked, the dichotomy being repeated four times; a single flower in the axil of each fork, the lowest flower expanding first, and so on in succession upwards. Each subdivision stands at right angles to the preceding and is subtended by two leaflets, which only differ from those on the lower part of the stem in being smaller and narrower; they cannot however be considered *bracteas* as usually described, since their relation to the flower is different from that occupied by a *bractea* as generally understood. On examining dried specimens of some of the other species, I was induced to believe that the same general arrangement exists also in them; so that Mr. Babington's description of *F. auricula* is also applicable to the others, omitting, however, the expression *distant*, for in some of the others the inflorescence is more condensed, owing to the shortening of the stems.

It may hence be inferred, that the nature of the inflorescence cannot be employed as a means of distinguishing the British species of *Fedia*, it being the same in all, only in some being lax and in others more dense. It has been already stated that the dich-

tomy of the inflorescence in *F. olitoria* is usually (invariably?) repeated four times; it would be desirable therefore to ascertain if there be any regularity in the number of divisions in the inflorescence of the other species.

In connexion with this subject, I cannot omit stating my belief, that British botanists have paid too little attention to the order of expansion of the flowers of our native plants.

The important inferences which may be deduced from observations on this subject were long ago pointed out by Mr. Brown, in a paper in the twelfth volume of the 'Transactions of the Linnean Society.'

XI.—*Upon the Anatomy of Phalangium Opilio (Latr.).*

By ALFRED TULK, M.R.C.S., M.E.S.

[Concluded from p. 253.]

[With a Plate.]

THE *female* organs of generation occupy a similar position within the abdomen to those of the male, and are composed of the following parts, viz. an ovipositor contained like the penis within a sheath, and an ovisac and ovarium.

The *ovarium* (Pl. V. fig. 26. O) is a white, delicate and transparent membranous tube traversing the whole circumference of the ventral aspect of the abdomen, and returning into itself anteriorly at a point (O<sup>c</sup>) where it opens into the ovisac. It is in relation above, with the under surface of the digestive sac and fatty mass; beneath, with the terminal portions of the ovipositor, the oviduct and abdominal nervous ganglia; while upon either side it dips deeply down under the coxæ of the posterior pair of legs, where the two tracheal trunks pass over it near to their origin. The anterior half of this tube (O<sup>a</sup>) is narrow, and it widens out gradually behind for the remainder of its extent, to contain a great number of ova in different stages of their development, from the size of a small pin's head to those which are scarcely visible to the naked eye. I have constantly observed that the largest or most advanced ova were situated in that part of the ovarium nearest to the ovisac, or most internally (Pl. V. fig. 27.). Each ovum is retained in a separate cæcal pouch of the ovarium, which surrounds it closely, and can be seen only upon rupturing it and allowing the ovum to escape. I have never met with ova in the anterior part of the ovarium, which contained instead irregular patches of an opaque granular matter.

The next organ, the *ovisac* (Pl. V. figs. 26 and 27. U), occupies the space included within the inner circumference of the ovary, being in contact superiorly with the fatty mass, and crossed